Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-30 (canceled).

Claim 31 (original): An apparatus for vaporizing and transporting precursor molecules to a deposition chamber for deposition of a thin film on a substrate, the apparatus comprising:

an ionic liquid source;

a carrier gas source in fluid communication with the ionic liquid source; and

a deposition chamber in fluid communication with the carrier gas source.

Claim 32 (amended): ~~An apparatus~~ A system for vaporizing and transporting precursor molecules to a deposition chamber for deposition of a thin film on a substrate, the ~~apparatus~~ system comprising:

an ionic liquid source;

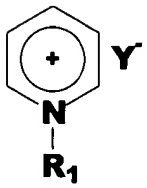
a carrier gas source;

a bubbler device for delivering the carrier gas source to the ionic liquid source; and

a deposition chamber in fluid communication with the ionic liquid source to receive vaporized molecules from the ionic liquid source.

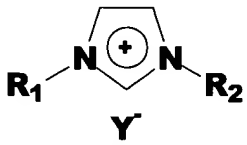
Claims 33-44 (canceled).

Claim 45 (previously presented): The apparatus of claim 31, wherein the ionic liquid is of the formula:



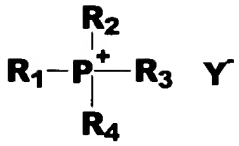
wherein R_1 is alkyl and Y^- is selected from a group consisting essentially of halides, sulfates, nitrates, acetates, nitrites, tetrafluoroborates, tetrachloroborates, hexafluorophosphates, $[SbF_6]^-$, chloroaluminates, bromoaluminates, chlorocuprates, heteropolyanions, trifluoromethanesulfonates, and mixtures thereof.

Claim 46 (previously presented): The apparatus of claim 31, wherein the ionic liquid is of the formula:



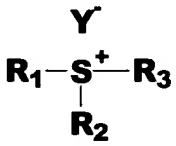
wherein R_1 and R_2 are alkyls and Y^- is selected from a group consisting essentially of halides, sulfates, nitrates, acetates, nitrites, tetrafluoroborates, tetrachloroborates, hexafluorophosphates, $[SbF_6]^-$, chloroaluminates, bromoaluminates, chlorocuprates, heteropolyanions, trifluoromethanesulfonates, and mixtures thereof.

Claim 47 (previously presented): The apparatus of claim 31, wherein the ionic liquid satisfies the formula:



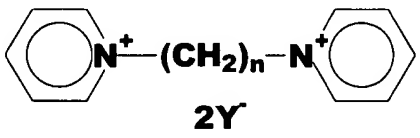
wherein R_1, R_2, R_3, R_4 are alkyls and Y^- is selected from a group consisting essentially of halides, sulfates, nitrates, acetates, nitrites, tetrafluoroborates, tetrachloroborates, hexafluorophosphates, $[SbF_6]^-$, chloroaluminates, bromoaluminates, chlorocuprates, heteropolyanions, trifluoromethanesulfonates, and mixtures thereof.

Claim 48 (previously presented): The apparatus of claim 31, wherein the ionic liquid satisfies the formula:



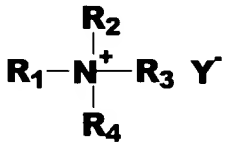
wherein R_1, R_2, and R_3 are alkyls and Y^- is selected from a group consisting essentially of halides, sulfates, nitrates, acetates, nitrites, tetrafluoroborates, tetrachloroborates, hexafluorophosphates, $[SbF_6]^-$, chloroaluminates, bromoaluminates, chlorocuprates, heteropolyanions, trifluoromethanesulfonates, and mixtures thereof.

Claim 49 (previously presented): The apparatus of claim 31, wherein the ionic liquid satisfies the formula:



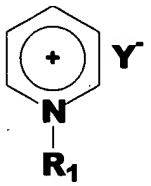
wherein n is from about 1 to about 10 and Y^- is selected from a group consisting essentially of halides, sulfates, nitrates, acetates, nitrites, tetrafluoroborates, tetrachloroborates, hexafluorophosphates, $[SbF_6]^-$, chloroaluminates, bromoaluminates, chlorocuprates, heteropolyanions, trifluoromethanesulfonates, and mixtures thereof.

Claim 50 (previously presented): The apparatus of claim 31, wherein the ionic liquid satisfies the formula:



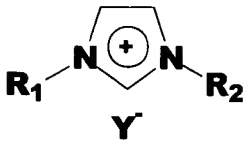
wherein R_1, R_2, R_3, R_4 are alkyls and Y^- is selected from a group consisting essentially of halides, sulfates, nitrates, acetates, nitrites, tetrafluoroborates, tetrachloroborates, hexafluorophosphates, $[SbF_6]^-$, chloroaluminates, bromoaluminates, chlorocuprates, heteropolyanions, trifluoromethanesulfonates, and mixtures thereof.

Claim 51 (amended): The ~~apparatus~~ system of claim 32, wherein the ionic liquid is of the formula:



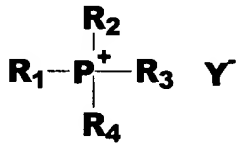
wherein R_1 is alkyl and Y^- is selected from a group consisting essentially of halides, sulfates, nitrates, acetates, nitrites, tetrafluoroborates, tetrachloroborates, hexafluorophosphates, $[SbF_6]^-$, chloroaluminates, bromoaluminates, chlorocuprates, heteropolyanions, trifluoromethanesulfonates, and mixtures thereof.

Claim 52 (amended): The ~~apparatus~~ system of claim 32, wherein the ionic liquid is of the formula:



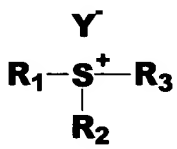
wherein R_1 and R_2 are alkyls and Y^- is selected from a group consisting essentially of halides, sulfates, nitrates, acetates, nitrites, tetrafluoroborates, tetrachloroborates, hexafluorophosphates, $[SbF_6]^-$, chloroaluminates, bromoaluminates, chlorocuprates, heteropolyanions, trifluoromethanesulfonates, and mixtures thereof.

Claim 53 (amended): The ~~apparatus~~ system of claim 32, wherein the ionic liquid satisfies the formula:



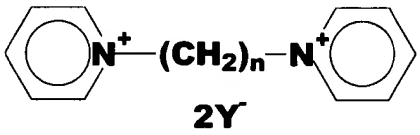
wherein R_1, R_2, R_3, R_4 are alkyls and Y^- is selected from a group consisting essentially of halides, sulfates, nitrates, acetates, nitrites, tetrafluoroborates, tetrachloroborates, hexafluorophosphates, $[SbF_6]^-$, chloroaluminates, bromoaluminates, chlorocuprates, heteropolyanions, trifluoromethanesulfonates, and mixtures thereof.

Claim 54 (amended): The ~~apparatus~~ system of claim 32, wherein the ionic liquid satisfies the formula:



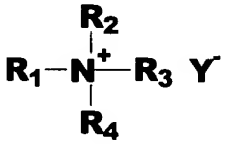
wherein R_1, R_2, and R_3 are alkyls and Y^- is selected from a group consisting essentially of halides, sulfates, nitrates, acetates, nitrites, tetrafluoroborates, tetrachloroborates, hexafluorophosphates, $[SbF_6]^-$, chloroaluminates, bromoaluminates, chlorocuprates, heteropolyanions, trifluoromethanesulfonates, and mixtures thereof.

Claim 55 (amended): The ~~apparatus~~ system of claim 32, wherein the ionic liquid satisfies the formula:



wherein n is from about 1 to about 10 and Y^- is selected from a group consisting essentially of halides, sulfates, nitrates, acetates, nitrites, tetrafluoroborates, tetrachloroborates, hexafluorophosphates, $[SbF_6]^-$, chloroaluminates, bromoaluminates, chlorocuprates, heteropolyanions, trifluoromethanesulfonates, and mixtures thereof.

Claim 56 (amended): The ~~apparatus~~ system of claim 32, wherein the ionic liquid satisfies the formula:



wherein R_1, R_2, R_3, R_4 are alkyls and Y^- is selected from a group consisting essentially of halides, sulfates, nitrates, acetates, nitrites, tetrafluoroborates, tetrachloroborates,

hexafluorophosphates, $[SbF_6]^-$, chloroaluminates, bromoaluminates, chlorocuprates, heteropolyanions, trifluoromethanesulfonates, and mixtures thereof.

Claim 57 (previously presented): An apparatus according to claim 31, further comprising:

a first vessel containing a first precursor and a second vessel containing a second precursor, each first and second vessel in fluid communication with the ionic liquid source, the carrier gas source, and the deposition chamber.